

**Notice of Allowability**

Application No.

09/732,342

Examiner

Insun Kang

Applicant(s)

SANGAVARAPU ET AL.

Art Unit

2193

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/30/2005.
2. ☒ The allowed claim(s) is/are 1,3,4,6-11,13,14,16-21,23,24,26-33,35-40,42-47 and 49-57.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Friedman (Reg. 44,688) on 10/28/2005 and 11/2/2005.

The application has been amended as follows:

**Per claim 1:**

Line 5: after "performing," --by the computer program-- has been added.

Line 6: after "determining," "the" has been changed to --a--.

Line 7: before "into," --from an executable image--has been added.

Line 7: "into memory" has been changed to --into physical memory--.

Line 7: "in memory" has been changed to --in the physical memory--.

Line 8: before "memory," --the physical--has been added.

Line 9: after "performing," --by the computer program--has been added.

Line 12: before "into," --from an executable image--has been added.

Line 12: "into memory" has been changed to --into the physical memory--.

Line 12: "in memory" has been changed to --in the physical memory--.

Line 13: before "memory," --the physical--has been added.

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Line 13: after “memory,” --; wherein said reading the page into the physical memory further comprises changing a file specific readpage process to a wrapper routine that invokes an original readpage process and then performs said inserting the global breakpoints—has been added.

**Per claim 2:** this claim has been cancelled.

**Per claim 3 (renumbered as 2):**

Line 1: after “claim,” ‘2’ has been changed to –1--.

Line 2: before “memory,” –the physical—has been added.

**Per claim 4 (renumbered as 3):**

Line 1: after “claim,” ‘2’ has been changed to –1--.

Line 3: after “into,” –the physical—has been added. After “in,” –the physical—has been added.

**Per claim 5:** this claim has been cancelled.

**Per claim 10 (renumbered as 8):**

Line 2: before “memory,” –the physical—has been added.

**Per claim 11 (renumbered as 9):**

Line 6: after “performing,” –by a computer program-- has been added.

Line 7: after “determining,” “the” has been changed to –a—.

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Line 8: before "into," --from an executable image—has been added.

Line 8: "into memory" has been changed to --into physical memory--.

Line 9: before "memory," --the physical—has been added.

Line 10: before "memory," --the physical—has been added.

Line 11: after "performing," --by the computer program—has been added.

Line 14: before "into," --from an executable image—has been added.

Line 15: "memory if" has been changed to --the physical memory if--.

Line 15: "in memory" has been changed to --in the physical memory--.

Line 16: before "memory," --the physical—has been added.

Line 16: after "memory," --; wherein said reading the page into the physical memory further comprises changing a file specific readpage process to a wrapper routine that invokes an original readpage process and then performs said inserting the global breakpoints—has been added.

**Per claim 12:** this claim has been cancelled.

**Per claim 13 (renumbered as 10):**

Line 1: after "claim," '12' has been changed to --11--.

Line 2: before "memory," --physical—has been added.

**Per claim 14 (renumbered as 11):**

Line 3: after "into," --the physical—has been added. After "in," --the physical—has been added.

**Per claim 15:** this claim has been cancelled.

**Per claim 20 (renumbered as 16):**

Line 2: before "memory," --physical--has been added.

**Per claim 21 (renumbered as 17):**

Line 5: after "performing," --by the computer program-- has been added.

Line 7: after "determining," "the" has been changed to --a--.

Line 8: before "into," --from an executable image--has been added.

Line 8: before "memory," --physical--has been added.

Line 9: before "memory," --the physical--has been added.

Line 10: before "memory," --the physical--has been added.

Line 11: after "performing," --by the computer program--has been added.

Line 15: before "into," --from an executable image--has been added.

Line 16: "memory if" has been changed to --the physical memory if--.

Line 16: "in memory" has been changed to --in the physical memory--.

Line 17: before "memory," --the physical--has been added.

Line 17: after "memory," --; wherein said reading the page into the physical memory further comprises changing a file specific readpage process to a wrapper routine that invokes an original readpage process and then performs said inserting the global breakpoints--has been added.

**Per claim 22:** this claim has been cancelled.

**Per claim 23 (renumbered as 18):**

Line 1: after "claim," '22' has been changed to --21--.

Line 3: before "memory," --physical--has been added.

**Per claim 24 (renumbered as 19):**

Line 1: after "claim," '22' has been changed to --21--.

Line 3: after "into," --the physical--has been added.

Line 4: after "in," --the physical--has been added.

**Per claim 25:** this claim has been cancelled.

**Per claim 30 (renumbered as 24):**

Line 3: before "memory," --physical--has been added.

**Per claim 31 (renumbered as 25):**

Line 1: "A method of" has been changed to --The method according to claim 1,  
further comprising the step of--.

Line 1: before "plurality," "a" has been changed to --the--.

Line 2: after "from," --the-- has been added.

Line 2: after "executing," "a" has been changed to --the--.

Line 3: before "processor," "a" has been changed to --the--.

Line 3: before "computer," "a" has been changed to --the--.

Line 4: after "performing," --by the computer program-- has been added.

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Line 5: after “determining,” “the” has been changed to —a—.

Line 6: before “into,” —from an executable image—has been added.

Line 6: “into memory” has been changed to —into the physical memory--.

Line 6: “in memory” has been changed to —in the physical memory--.

Line 7: before “memory,” —the physical—has been added.

Line 8: after “performing,” —by the computer program—has been added.

Line 11: “memory if” has been changed to —the physical memory if--.

Line 11: “in memory” has been changed to —in the physical memory--.

Line 12: before “memory,” —the physical—has been added.

Line 12: ‘.’ has been changed to --; wherein said reading step includes the step of turning off an operation set up earlier for inserting the global breakpoint in said page when said page is read into the physical memory. --

**Per claim 32 (renumbered as 26):**

Line 2: before “memory,” —the physical—has been added.

Line 3: before “memory,” —the physical—has been added.

**Per claim 33 (renumbered as 27):**

Line 2: before “memory,” —the physical—has been added.

**Per claim 34,** this claim has been cancelled.

**Per claim 37 (renumbered as 30):**

Line 2: before “memory,” —the physical—has been added.

**Per claim 38 (renumbered as 31):**

Line 1: "A computer-implemented apparatus for" has been changed to --The computer-implemented apparatus according to claim 11, further including means for--.

Line 1: after "removing," "a" has been changed to --the--.

Line 2: after "from," --the-- has been added.

Line 3: before "central," "a" has been changed to --the--.

Line 4: before "memory,"--the—has been added.

Line 5: after "performing," --by the computer program-- has been added.

Line 6: after "determining," "the" has been changed to --a—.

Line 7: before "into," --from an executable image—has been added.

Line 7: before "memory," --the physical—has been added.

Line 8: "memory" has been changed to --the physical memory--. After "in," --the physical—has been added.

Line 9: after "performing," --by the computer program—has been added.

Line 12: before "memory," --the physical—has been added.

Line 13: before "memory," --the physical—has been added.

Line 14: before "memory," --the physical—has been added.

Line 14: '.' has been changed to --; wherein said reading means includes means for turning off an operation set up earlier for inserting the global breakpoint in said page when said page is read into the physical memory. --

**Per claim 39 (renumbered as 32):**

Line 2: before "memory," --physical—has been added.



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Line 3: before "memory," –the physical—has been added.

**Per claim 40 (renumbered as 33):**

Line 2: before "memory," –physical—has been added.

**Per claim 41, this claim has been cancelled.**

**Per claim 44 (renumbered as 36):**

Line 2: before "memory," –physical—has been added.

**Per claim 45 (renumbered as 37):**

Line 1: "A computer program product having a computer readable medium having a computer program recorded therein for" has been changed to –The computer program product according to claim 21, further including computer program code means for--.

Line 2: after "removing," "a" has been changed to –the--.

Line 3: after "from," –the-- has been added.

Line 4: after "performing," –by the computer program-- has been added.

Line 6: after "determining," "the" has been changed to –a—.

Line 7: before "into," –from an executable image—has been added.

Line 7: "into memory" has been changed to --into the physical memory--. "in memory" has been changed to --in the physical memory--.

Line 8: before "memory," –the physical—has been added.

Line 9: after "performing," –by the computer program—has been added.

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Line 13: before "memory," –the physical—has been added.

Line 14: before "memory," –the physical—has been added.

Line 15: before "memory," –the physical—has been added.

Line 15: '.' has been changed to --; wherein said computer program code means for reading includes turning off an operation set up earlier for inserting the global breakpoint in said page when said page is read into the physical memory. --

**Per claim 46 (renumbered as 38):**

Line 3: before "memory," –physical—has been added.

Line 4: before "memory," –the physical—has been added.

**Per claim 47 (renumbered as 39):**

Line 3: before "memory," –physical—has been added.

**Per claim 48, this claim has been cancelled.**

**Per claim 51 (renumbered as 42 ):**

Line 2: before "memory," –physical—has been added.

These amendments were necessary in order to further clarify the claims and obviate any rejection under 35 U.S.C. 112 2<sup>nd</sup>.

***Examiner's Statement of Reason(s) for Allowance***

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2. Claims 1, 3, 4, 6-11, 13, 14, 16-21, 23, 24, 26-33, 35-40, 42-47, and 49-57 (renumbered 1-48) are allowed.

3. The following is an examiner's statement of reasons for allowance:

The closest prior arts of record, i.e. Johnson and Moor, taken alone or in combination, fail to teach or fairly suggest at least: inserting the global breakpoint in the private copy present in the physical memory; wherein said reading the page into the physical memory further comprises changing a file specific readpage process to a wrapper routine that invokes an original readpage process and then performs said inserting the global breakpoints as recited in independent claims 1, 11, and 21.

While Johnson and Moor do disclose a method of reading page into physical memory and then inserting a breakpoint, ultimately Johnson and Moor do not state at least: the reading page into physical memory comprises changing a file specific readpage process to a wrapper routine that invokes an original readpage process and then performs the step of inserting global breakpoints.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724.

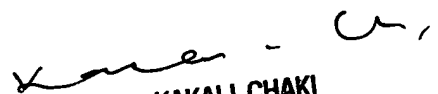
The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I. Kang  
Examiner  
11/2/2005



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